

**Male genitalia in *Dioryctria abietella* (D. & S.), *D. simplicella* Hein. and *D. sylvestrella* (Ratzeburg) (Lep.: Pyralidae)**

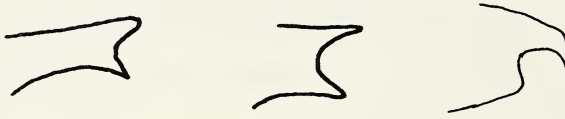


Figure 1. Tips of valves of British *Dioryctria* species. Left to right: *D. abietella*, *D. simplicella*, *D. sylvestrella*. A fourth species, *D. schuetzeella* is not drawn.

May I draw to readers' attention the usefulness of the male genitalia in this rather difficult group of moths, and that they can be examined *in situ*? I had been growing increasingly uneasy about my determinations based largely on the subterminal line of the forewing and wingspan, and when I was lent a copy of the now out of print work by Palm (1986. *Nordeuropas Pyralider*. Fauna Bøger), I resolved to dissect them all. I dissected a couple, and then realised that the characters might be made visible by brushing the scales from the tip of the abdomen of set specimens. I did this with the remaining four specimens, two *D. abietella* and one each of *D. simplicella* and *D. sylvestrella*. None proved difficult to assign, though I think that with *D. abietella* and *D. simplicella* the task became easier with both species present. *D. sylvestrella* is particularly obvious. The valve is broad, and its lower margin is poorly chitinized, appearing pale like tissue paper and being easily damaged whilst brushing off scales. In *D. abietella* the apex of the valve ends in a sharp angle, whilst *D. simplicella* has a short broad spine. Both species have a spine just below the apex of the valve. I have no material of *D. schuetzeella* Fuchs, but as this is said to be the most distinctive of the four species, examination of the genitalia is probably not going to be needed. I should say that examination of my limited material of these species revealed that my determinations based on size and subterminal line had been little better than random. Anyone practiced in the use of a hand lens should be able to pick out *D. sylvestrella*, but I think a microscope would be necessary to distinguish *D. simplicella* and *D. abietella*. Pierce's drawings in Pierce & Metcalf (1938. *The Genitalia of the British Pyrales with The Deltoids and Plumets*) are correct, but the difference between *D. abietella* and *D. simplicella* (shown under the previous name of *mutatella*) seems somewhat exaggerated, whilst the apex of the valve of *D. sylvestrella* (under the name *splendidella*) is poorly drawn. Parsons and Clancy (2002. *Dioryctria sylvestrella* (Ratz.) – New to Britain and Ireland and the Identification of the British *Dioryctria* species. *Atropos* **15**: 16-19) warn that the genitalia of *D. simplicella* and *D. abietella* are very similar and variable, so much so that it can be difficult to determine these species on dissection. In my small series I encountered no such problem, but it may be that there is a small proportion where the tip of the valve is intermediate between an angle and a spine. — RICHARD DICKSON, 39 Serpentine Road, Fareham, Hampshire PO16 7ED (E-mail rdickson@fish.co.uk).